

ROUTING AND TRANSMITTAL SLIP

Date

TO: (Name, office symbol, room number,
building, Agency/Post)

Initials

Date

1. ~~FILE~~ ARCO, FLOW STATION 3,

2. PRUDHOE BAY

3.

4.

5.

Action	File	Note and Return
Approval	For Clearance	Per Conversation
As Requested	For Correction	Prepare Reply
Circulate	For Your Information	See Me
Comment	Investigate	Signature
Coordination	Justify	

REMARKS

THE THREE SMALL TURBINES
WILL BE SUBJECT ONLY
TO NSPS SO₂ STANDARDS,
NOT NOX,

USEPA REG



0000135

DO NOT use this form as a RECORD of approvals, concurrences, disposals,
clearances, and similar actions

FROM: (Name, org. symbol, Agency/Post)

Room No.—Bldg.

Phone No.

Wayne

NSPS

STATE OF ALASKA

DEPT. OF ENVIRONMENTAL CONSERVATION

JAY S. HAMMOND, GOVERNOR

465-2601
RECEIVED

POUCH 0 - JUNEAU 99811

SEP 01 1981

August 25, 1981
CERTIFIED MAIL
RETURN RECEIPT
REQUESTED

WATER COMPLIANCE SECTION
EPA - REGION X

RECEIVED

SEP 1 1981

COMPLIANCE BRANCH
EPA - REGION X

Mr. P.B. Norgaard
North Alaska District Manager
ARCO Alaska Inc.
Post Office Box 360
Anchorage, Alaska 99510

Dear Mr. Norgaard:

The Department has reviewed Mr. Kevin Myer's July 15, 1981 description of three 1200 HP gas turbines to be installed at Flow Station 3 for use prior to start-up of the permanent artificial lift main turbines. Based on this review, the Department has determined that:

1. Three gas-fired turbines, each rated at 1200 hp each (approximately 12.5 gigajoules) are to be installed at Flow Station 3 for use during 1982 - 1984.
2. Total air contaminant emissions from the three turbines operating at maximum rates would be approximately:

NO_x - 75 tons per year

CO - 20 tons per year

PM, SO₂ and others - each less than 5 tons per year

3. Applicant has been issued a Federal Prevention of Significant Deterioration Permit (PSD-X80-09 as amended May 7, 1981) for an increase in emissions of 3979 tons NO_x, 792 tons CO, and 91 tons PM per year. This authorized equipment is scheduled for start-up in mid-1984.
4. Applicant proposes to shut down the three small turbines when the large turbines begin operation.

.08-25-81.

The Department finds that:

1. The turbines will comply with the particulate matter and sulfur dioxide regulations specified in 18 AAC 50.050, as long as natural gas is the only fuel burned.
2. Flow Station 3 is a Prevention of Significant Deterioration facility as defined in Section 169 (1) of the Clean Air Act Amendments of 1977 (P.L. 95-95).
3. The proposed new emissions will exceed 40 tons NO_x per year, the "de-minimus" level for modification requiring PSD review pursuant to 40 CFR 52.21 (b)(23)(i).
4. The proposed new emissions will be less than those previously authorized and will cease when the permitted equipment commences operation.
5. The new turbines are subject to New Source Performance Standards specified in 40 CFR 60 subpart GG.

Based on these findings, Alaska Air Quality Control Permit to Operate AQC-443 is amended. Please note that condition 2 of the permit prohibits operation of the three new turbines once the first 36,000 HP turbine authorized by EPA permit. PSD-80-09 starts up. In this way, the new emissions will not cause an increase in emissions beyond those already analyzed and approved.

Please contact Mr. Jim Sweeney at the Alaska Operations Office of EPA in Anchorage to determine which new source performance standard testing and reporting requirements apply to these turbines.

You have a right to an adjudicatory hearing to contest the department's action. A request for an adjudicatory hearing must be made within 30 days of receipt of this letter by mailing or delivering a statement of issues to the Alaska Department of Environmental Conservation, Pouch O, Juneau, Alaska 99811. The statement of issues must state the basis for the hearing request and otherwise conform to 18 AAC 15.200. A failure to request a hearing within 30 days of receipt of this letter constitutes a waiver of your right to administrative or judicial review of this action.

Sincerely,

for Deena J. Henkins
Glenn Akins
Deputy Commissioner

Enclosure: AQC 433 C

ALASKA DEPARTMENT OF ENVIRONMENTAL CONSERVATION
AIR QUALITY CONTROL
PERMIT TO OPERATE

Permit No. AQC-443C
Amends Permit No. AQC-443A

Date of Issue: August 25, 1981

The Department of Environmental Conservation, under authority of AS 46.03 and 18 AAC 50.400, issues an Air Quality Control Permit to Operate to:

ARCO Oil & Gas Company
P.O. Box 360
Anchorage, Alaska 99510

for the operation of Flow Station No. 3, associated fuel burning equipment and safety flaring system, as listed in Exhibit A of this permit and described in the Atlantic Richfield Company Air Quality Control Permit to Operate application dated October 17, 1977 with attached Engineering Report, letter dated February 7, 1978, ARCO Oil & Gas Company letter dated May 16, 1979, Radian Corporation "PSD Permit Application for the Prudhoe Bay Unit Produced Water Injection, Low Pressure Separation and Artificial Lift Project" dated 28 September 1979, ARCO Oil & Gas Company letter with attachments, dated March 5, 1980, and ARCO Alaska Incorporated, dated July 15, 1981.

Located at Section 3, T10N, R14E, (UM) Prudhoe Bay, Alaska.

Under the conditions:

1. Permittee shall comply with the State Ambient Air Quality Standards and increments established in Section .020 and applicable emission standards specified in Sections 030, 040, and 050 of the State Air Quality Control Regulations 18 AAC 50.
2. Use of the three 1200 hp turbines described in the ARCO Alaska, Incorporated letter July 15, 1981 and installed during 1982 is prohibited after September 30, 1984 or start-up of the first 36,000 hp turbine described in the 28 September 1979 PSD permit application, whichever date is earliest. Notify the Department of the permanent shut down date.
3. An Air Contaminant Emission Report, as described in Exhibit A, shall be submitted to the Department semiannually by July 30 and January 30 each year.
4. Permittee shall maintain and operate all fuel burning equipment to provide optimum fuel burning efficiency during all operating periods.
5. In the event of an emergency shut down of the Flow Station and subsequent failure of the automatic well shut-in systems, open burning of flammable liquids is permitted.
6. The Department, with the permittee's approval, is allowed access to permittee's facilities to conduct scheduled or unscheduled inspections or tests to determine compliance with this permit and State environmental laws and regulations.
7. A copy of the permit shall be clearly displayed, and the State Air Quality Control Regulations 18 AAC 50 kept on file, at the permitted facility location.

This permit expires 30 January, 1985, and may be suspended or revoked in accordance with 18 AAC 50.310.

for Deena J. Henkins
Glenn Akins
Deputy Commissioner

EXHIBIT A
PERMIT TO OPERATE AQC-443C
AIR CONTAMINANT EMISSION REPORT

A notarized Air Contaminant Emission Report shall be submitted to the Department semiannually by July 30 and January 30 each year. This report is to be submitted for any period during which the equipment is tested or operated. The report shall include, but not be limited to the following information:

NAME OF FIRM
LOCATION OF FACILITIES
PERIOD OF REPORT

1st Month	2nd Month	3rd Month	4th Month	5th Month	6th Month
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1. DAYS OPERATED (number of hours or days)
2. FUEL CONSUMPTION
 - a) 6 natural gas heaters (total mmcf in these units)
installed prior to 2 August 1978
totaling 100.00 mm Btu/hr

2 natural gas turbines
installed prior to 2 Aug 1978
totaling 24,000 HP
 - b) 6 natural gas turbine (total mmcf in these units)
installed after 2 August 1978
totaling 154,000 HP
 - c) 3 temporary gas turbines (total mmcf in these units)
totaling 3600 HP
 - d) 1 emergency diesel generator (gallons)
 - e) flaring system (hours flaring and mmcf gas other than pilot/sweep gas)
3. Include summary results of each NO-NO₂ and SO₂ source test conducted pursuant to 40 CFR 60.332 and 40 CFR 60.333 within thirty (30) days following each test. Include date, testing method, sampling train, fuel burning rate of turbine(s), heat content of fuel, % isokinetic test conditions, pollutant emission rate and concentration, stack exhaust gas flow rate (actual and corrected to standard conditions), stack exhaust temperature and stack exhaust water vapor content.
4. Attach a summary of any monitoring data assembled and excess emission reports prepared if done pursuant to requirement specified in 40 CFR 60.334.

Permit to Operate AQC-443E - Exhibit A (continued)

5. Report to the Regional Environmental Supervisor, Northern Regional Office, P.O. Box 1601, Fairbanks, Alaska 99707, telephone (907) 452-1714, open burning of flammable hydrocarbon liquids as a result of an emergency shut down (ESD) within twelve (12) hours of the incident.
6. Attach a detailed description of equipment failures or operating conditions which may have adversely affected air contaminant emissions. A preliminary report of the incident shall be submitted to the Regional Environmental Supervisor, Northern Regional Office, P.O. Box 1601, Fairbanks, Alaska 99701, telephone: 452-1714, within five (5) days of the incident.

Include such information as: date of incident, duration, nature of the occurrence, equipment failures, steps taken to minimize emissions, measures taken to avoid recurrence, and a general description of the weather. A separate report is required for each incident.

7. Signature of authorized agent preceded by the statement: "I _____, being first duly sworn, hereby certify that I am familiar with the information contained in this report and that to the best of my knowledge and belief such information is true, complete and accurate."
8. Notarization: "Subscribed and sworn to before me this _____ day of _____ (month), _____ (year) _____ (city & state)."

Notary Public's Signature
Commission, Date of Expiration,
Seal